



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-3147; Directorate Identifier 2014-NM-094-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 777-200, -200LR, -300, and -300ER series airplanes. This proposed AD was prompted by reports of fractured forward attach fittings of the inboard flap outboard aft flap track. The fractured fittings were determined to be the result of corrosion pits forming on the inside diameter of the fittings. This proposed AD would require an inspection for the affected part number and serial number of the main flap; various additional repetitive inspections of the fitting, if necessary; and replacement of the fitting or nested bushing installation, if necessary, which would terminate the inspections. This proposed AD would also provide for optional terminating action for the repetitive inspections. We are proposing this AD to detect and correct fracture of the fitting, which could result in the loss of the inboard aft flap and could lead to a punctured fuselage, causing injury to the flightcrew and passengers, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3147.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3147; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Eric Lin, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind

Avenue SW., Renton, WA 98057-3356; telephone: 425-917-6412; fax: 425-917-6590; email: Eric.Lin@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-3147; Directorate Identifier 2014-NM-094-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of fractured forward attach fittings of the inboard flap outboard aft flap track, and it is believed to be the result of corrosion pits forming on the inside diameter of the fittings. Four operators have reported finding four fractured forward attach fittings of the aft flap track of the inboard flap on airplanes with approximately 20,300 to 31,900 total flight hours and approximately 5,900 to 8,500 total flight cycles. In addition, two operators reported three cracked fittings on airplanes with approximately 29,300 to 35,700 total flight hours and approximately 5,200 to 7,900 total flight cycles. This condition, if not corrected, could result in the loss of the inboard aft flap and could lead to a punctured fuselage, causing injury to the flightcrew and passengers, and damage to the airplane.

Related Service Information under 1 CFR part 51

We reviewed Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014. The service information describes procedures for an inspection for the affected part number and serial number of the main flap; various additional repetitive inspections of the fitting, if necessary; and replacement of the fitting or nested bushing installation, if necessary, which would eliminate the need for the inspections. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the Service Information." Refer to this service information for details on the procedures and compliance times.

Explanation of "RC" Steps in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (ARC), to enhance the AD system. One enhancement was a new process for annotating which steps in the service information are required for compliance with an AD. Differentiating these steps from other tasks in the service information is expected to improve an owner's/operator's understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The steps identified as Required for Compliance (RC) in any service

information identified previously have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

For service information that contains steps that are labeled as RC, the following provisions apply: (1) the steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD, and an AMOC is required for any deviations to RC steps, including substeps and identified figures; and (2) steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

Differences Between this Proposed AD and the Service Information

Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, specifies groups 1, 2, 3, 4, and 5 airplanes as the effectivity. However, this proposed AD is applicable only to groups 1, 2, and 4 airplanes (Model 777-200, -200LR, -300, and -300ER airplanes) because the identified unsafe condition only affects these airplanes. For groups 3 and 5 airplanes (Model 777F airplanes), the consequence of fitting fracture on these airplanes has not been determined to be an unsafe condition at this time. Therefore, we are not requiring inspections for groups 3 and 5 airplanes. We have coordinated this difference with Boeing.

Costs of Compliance

We estimate that this proposed AD affects 148 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection to determine the part number	3 work-hours X \$85 per hour = \$255	\$0	\$255	\$37,740
Additional Inspections	Up to 7 work-hours X \$85 per hour = \$595, per cycle	\$0	Up to \$595, per cycle	Up to \$88,060, per cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. The nested bushing installation of the attach fitting and the fitting replacement are also optional terminating actions. We have no way of determining the number of aircraft on which these actions might be done.

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Nested bushing installation of the attach fitting	40 work-hours X \$85 per hour = \$3,400	\$45	\$3,445
Fitting replacement	73 work-hours X \$85 per hour = \$6,205	\$7,400	\$13,605

According to the manufacturer, all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2015-3147; Directorate Identifier 2014-NM-094-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 777-200, -200LR, -300, and -300ER series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of fractured forward attach fittings of the inboard flap outboard aft flap track. The fractured fittings were determined to be the result of corrosion pits forming on the inside diameter of the fittings. We are issuing this AD to detect and correct fracture of the fitting, which could result in the loss of the

inboard aft flap and could lead to a punctured fuselage, causing injury to the flightcrew and passengers, and damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection to Determine the Part Number

At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, except as provided by paragraph (l) of this AD: Do an inspection of the inboard flap of the main flap for affected part and serial numbers, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the inboard flap can be conclusively determined from that review.

(h) Additional Inspections

If any inboard flap of the main flap having an affected part number and serial number is found during the inspection required by paragraph (g) of this AD: Except as provided by paragraph (l) of this AD, at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, do the inspections specified in paragraph (h)(1) or (h)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014. Repeat the inspections thereafter at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, until a terminating action in paragraph (k)(1), (k)(2), or (k)(3) of this AD is done.

(1) At the forward attach fitting of the aft flap track of the inboard flap: Do a detailed inspection for cracking and bushing migration, and a high frequency eddy current inspection for cracking, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(2) At the forward attach fitting of the aft flap track of the inboard flap: Do a detailed inspection for cracking and bushing migration, and an ultrasound inspection for cracking, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(i) Corrective Action for Bushing Migration

If any bushing migration but no cracking is found during any inspection required by paragraph (h) of this AD: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, do the actions specified in paragraphs (i)(1) through (i)(3) of this AD. Accomplishment of a terminating action specified in paragraph (i)(3) or (k) of this AD terminates the actions required by this paragraph.

(1) Apply corrosion inhibiting compound BMS 3-23, Type II, around the bushing flanges on each side of the fitting, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014. Re-apply the corrosion inhibiting compound at the time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(2) Repeat the inspections specified in paragraph (h)(1) or (h)(2) of this AD, except inspect for cracking only.

(3) Do a terminating action specified in paragraph (i)(3)(i), (i)(3)(ii), or (i)(3)(iii) of this AD.

(i) Install a nested bushing to the forward attach fitting of the aft flap track of the inboard flap, in accordance with Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(ii) Replace the forward attach fitting of the aft flap track of the inboard flap with an aluminum fitting, in accordance with Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(iii) Replace the forward attach fitting of the aft flap track of the inboard flap with a titanium fitting, in accordance with Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(j) Corrective Actions for Cracking

If any cracking is found during any inspection required by paragraph (h) or (i)(3) of this AD: At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, do a terminating action specified in paragraph (j)(1) or (j)(2) of this AD. Replacement of the forward attach fitting as specified in paragraph (j)(1) or (j)(2) of this AD terminates the actions in this AD.

(1) Replace the forward attach fitting of the aft flap track of the inboard flap with an aluminum fitting, in accordance with Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(2) Replace the forward attach fitting of the aft flap track of the inboard flap with a titanium fitting, in accordance with Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014.

(k) Optional Terminating Actions

(1) Installation of the nested bushing to the forward attach fitting of the aft flap track of the inboard flap, in accordance with Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, terminates the requirements of this AD.

(2) Replacement of the forward attach fitting of the aft flap track of the inboard flap with an aluminum fitting, in accordance with Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, terminates the requirements of this AD.

(3) Replacement of the forward attach fitting of the aft flap track of the inboard flap with a titanium fitting, in accordance with Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, terminates the requirements of this AD.

(l) Exception to the Service Information

Where Boeing Special Attention Service Bulletin 777-57-0094, Revision 1, dated November 5, 2014, specifies a compliance time “after the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(m) Credit for Previous Actions

(1) This paragraph provides credit for the actions specified in paragraphs (h)(1) and (h)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 777-57-0094, dated January 29, 2014, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the actions specified in paragraph (h)(1) of this AD, if those actions were performed before the effective date of this AD using

Boeing Multi Operator Message MOM-MOM-13-0137-01B, dated February 21, 2013, which is not incorporated by reference in this AD.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (o)(1) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (n)(4)(i) and (n)(4)(ii) apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining

approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(o) Related Information

(1) For more information about this AD, contact Eric Lin, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-917-6412; fax: 425-917-6590; email: Eric.Lin@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 17, 2015.

Kevin Hull,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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